

Kentucky Health Information Technology Strategic and Operational Plan Profile

Overview

The U.S. Census Bureau estimates Kentucky's population to be 4.3 million. Largely rural, 98 of the state's 120 counties are categorized as non-metropolitan and 54 are designated by federal statute as Appalachian. 85 counties are designated as being all or partially medically underserved.

In 2009, the Kentucky Medicaid program provided coverage to nearly 800,000 members. Another 300,000 are expected to join the program in response to the Affordable Care Act. There are approximately 4,200 primary care physicians statewide. The state has 124 hospitals, of which 101 are acute care, including 30 designated as Critical Access Hospitals (CAH). The majority of these are small community hospitals. Consequently, the state has a number of extremely active medical trading partnerships supported by regional medical centers and the state's two university-affiliated medical centers. Additionally, with approximately 16 percent of the population without health insurance, federally qualified health centers, public health departments, and other safety net providers are an important

Model and Services

Initially funded through a \$4.9 million Medicaid Transformation Grant, the Kentucky Health Information Exchange (KHIE) became operational in six hospital systems and one clinic on April 1, 2010. The early core components already developed by KHIE to enable statewide exchange include: a master patient/person index (data collected from participating providers and Medicaid), a record locator source of preventive and primary care for many.

service, provider/user authentication, and other services such as logging audits and alerts, services supporting electronic prescribing, patient demographics, laboratory and imaging reports, past medical diagnoses, dates of services, hospital stays, a statewide immunization registry, and a provider portal.

KHIE offers participating healthcare providers three options for exchange based on their current practices and technical capabilities. The first option is the ability to "push" information from one provider to another. This option is enabled using KHIE's secure messaging capabilities and provider directories, both available at no cost to providers through the end of 2012, after which time user fees will be assessed. As of January 21, 2011, secure messaging capabilities are in live production for registered users of KHIE's clinician portal. KHIE offers secure messaging at three levels:

1. The capacity to "look-up"
2. The capacity to send a secure email
3. The capacity to send a secure message through the Elysium Framework



State: Kentucky

HIT Coordinator:

Polly Mullins-Bentley (Interim)

Statewide HIE:

Kentucky Health Information Exchange (KHIE)

Award Amount: \$9,750,000

Contact:

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Website: <http://khie.ky.gov>

Other Related ONC funding in Kentucky:

Regional Extension Center (REC):
University of Kentucky Research
Foundation \$6,005,467



Office of the National Coordinator for Health Information Technology
State Health Information Exchange Cooperative Agreement Program
<http://HealthIT.hhs.gov>
Last edited 12/23/2011

Kentucky's plan emphasizes outreach to and registration of Kentucky's physicians and other eligible providers, concurrently updating information for the provider directories while also enrolling them as registered users of KHIE's clinician portal. This service will be offered at no cost for the first two years by leveraging funds from Kentucky's Medicaid Transformation program funds. Coordination with Kentucky's RECs (HealthBridge and University of Kentucky) as well as a KHIE intake coordinator has allowed KHIE to meet aggressive targets in connecting hospitals in the first quarter of operations. This is a record that they plan to repeat quarterly through 2011 to ensure access for any willing participant.

Adding to KHIE's capabilities, HealthBridge is currently "on-boarding" to Connect Exchange and has committed to serve as an Implementation Geography for the Direct Project in the first quarter of 2011. It is anticipated that HealthBridge, using its current vendor Axolotl, will serve as a health information service provider (HISP) to support "Direct" messaging in Kentucky.

The KHIE's technical infrastructure is designed to support connectivity to, and bi-directional functionality with, HealthBridge and North East Kentucky RHIO, the Nationwide Health Information Exchange (NwHIN), and other national networks. It will also serve as the on-ramp to the state immunization registry, laboratory reporting, and syndromic surveillance. As of January 2011, Kentucky's state public health lab is connected to KHIE and is delivering lab results to both hospitals and individual clinicians. Registered users can access immunization records in the statewide registry, and submit immunization records and updates electronically via KHIE. State officials responsible for the administration of the immunization registry have determined to use KHIE as the sole option for electronic submission of immunization records.



Highlights

- **State Health Policy Consortium Project:** Kentucky is participating in the State Health Policy Consortium Project, a multi-state effort to work towards agreement on health information organization (HIO) patient authorization policies, and the harmonization of authorization forms in use or proposed for use in project states. Its members include representatives from Kentucky, Alabama, Florida, Michigan, New Mexico, and Texas. The project will focus on the use of a universal patient authorization form. This form will address providers obtaining patient authorization for the exchange of data related to sensitive conditions that frequently require explicit authorization under various state laws. A deliverable of the project will be a recommended universal authorization form designed for the five States participating in the project. The project will also address options for states to promote the use of the universal patient authorization form, such as legislation that offers liability protections, recommended use by state designated entities (SDEs) for health information exchange (HIE), and adoption of the form by state Medicaid agencies.
- **KY-CHILD:** The Kentucky Division of Laboratory Services (DLS) tests for 44 metabolic disorders for over 55,000 live births annually. In 2006, CHFS launched the KY-CHILD (Certificate of Birth, Hearing, Immunization, and Lab Data), a web-based application for the collection and submission of data related to birth certificates, and newborn metabolic and hearing screenings. Each newborn is assigned a unique identifier and all information about the child is available through a single integrated web application. With the launch of the KHIE in April 2010, the DLS initiated an effort (in collaboration with GOEHI and OATS) to expand the capacity of KY-CHILD to connect the NBS program to the KHIE. The NBS anticipates sending results to the KHIE and having the newborn metabolic screening results available to the pediatric medical home and other care providers. They also anticipate this information becoming a part of the child's electronic health record (EHR). The integration of the NBS program into the KHIE was made possible through the diverse collaboration of a number of state and national entities.
- **Connectivity Assistance Program:** To incentivize early connectivity, the KHIE Connectivity Assistance Program will cover the following costs for participating hospitals and clinics through January 2012, using funds leveraged through the Medicaid Transformation Grant program:
 - Cost of Initial Connectivity/Maintenance: One-time cost for interface development and purchase of an Edge Server for each participating hospital
 - Annual Licensing & Maintenance Cost



Meaningful Use

Landscape

Strategy

E-Prescribing 89% of pharmacies in the state can accommodate and execute an e-prescription, and 85% of community pharmacies accept electronic prescription refill requests.

Surescripts reports a gradual increase in the percentage of prescriptions routed electronically in Kentucky; however, the rate of use is still very low. Similarly, while the number of physicians routing prescriptions electronically has increased, less than one in five physicians are reported to be doing so.

The KHIE Framework supports e-prescribing, a core service of the KHIE available to users, with provider adoption currently at 25%.

KHIE is working closely with RECs to conduct outreach and education to providers to encourage the use of e-prescribing services and modules.

Structured Lab Results

70% of the 10 clinical laboratories surveyed send results electronically. They also reported producing and delivering structured lab results to physicians and hospitals in Kentucky. These 10 laboratories account for 88% of Medicaid payments for labs.

The Cabinet for Health and Family Services' leadership worked with the Kentucky General Assembly during its 2010 Session to revise the Kentucky Revised Statutes. These revisions permitted medical laboratory results to be transmitted to an electronic health information exchange or network for specified purposes with patient consent and compliance with the Health Insurance Portability and Accountability Act (HIPAA).

Prior to the revisions, KRS 333.150 specified that the results of the laboratory test could only be provided to the clinician or authorized person who requested the test. With this change in statute, laboratory test results may be exchanged electronically. This change opens the door for the state public health laboratory to exchange lab results through the KHIE.

The KHIE provides the technical platform for electronic exchange of health information statewide. It also provides a mechanism for bi-directional exchange, through which hospitals and clinicians can electronically submit reportable lab results to the Department for Public Health, Division of Laboratory Services (DLS), and satisfy Stage 1 Meaningful Use criteria.

Financed through the Medicaid Transformation Grant and the Division of Laboratory Services, lab results delivery services through KHIE's clinician portal and/or EHR interfaces were implemented at a production level in December 2010. Each year, in excess of 3 million tests are performed by the State Lab. These results will be delivered through the KHIE through direct EMR interfaces, the VHR, and other means. Mapping to Logical Observation Identifiers Names and Codes (LOINC) coding has resulted in mapping tables, which have been reviewed by the National Library of Medicine. Kentucky has offered to share the coding with other states and is participating on ONC's Community of Practice for lab interoperability.

The statewide immunization registry, housing 85 percent of immunizations records for the state, is maintained by the Department for Public Health. KHIE currently supports bi-directional exchange between the KHIE and the Kentucky Immunization Registry (KYIR), and is expanding access from current users (limited to local health departments) to any registered user of KHIE. The goal is to increase the number of immunizations recorded in the immunization registry to 90-95 percent through interoperability to the KHIE, as well as enable access to any clinician with authorized access.



Patient Care Summary

Only a small percentage of providers are exchanging patient care summaries.

Less than one percent of hospitals have the current capacity to electronically exchange health information across unaffiliated networks to meet Meaningful Use requirements.

The HIE Framework supports exchange of patient information via Health Level Seven (HL7 v2), through which clinical messages can be sent and received. It does not, at present,

The KHIE Framework architecture supports the user in extracting, storing, and viewing a CCD in a viewer. Many EHRs are not mature enough, however, to handle CCDs.

The Exchange Hub will be configured to send patient data to a KHIE repository, which will contain all available patient data regardless of entry point (maximum retention of 24 hours). It will also orchestrate the production of a CCD, which will be sent to the requesting user through the KHIE Framework Exchange Hub.

As of December 2011, connectivity from the KHIE web-based HIE framework to the Virtual Private Network (VPN) environment supports the extraction, storing, and viewing of a complete CCD patient summary for all KHIE users.



HIE Inventory

Standards		Quality Improvement	
Nationwide Health Information Network Exchange Specifications	X	Care Coordination	X
Nationwide Health Information Network CONNECT		Quality Reporting	X
Nationwide Health Information Network DIRECT	X	Behavioral Health Information Exchange	X
Plans to exchange with federal agencies or other states via Nationwide Health Information specifications	X		
Public Health		Lab Strategy	
Electronic lab reporting of notifiable conditions	X	Translation services	X
Syndromic surveillance	X	EHR interface	X
Immunization data to an immunization registry	X	Policy strategy	X
Patient Engagement		Order Compendium	
Patient Access/PHR	X	Bi-Directional	X
Blue Button		Alignment with CLIA	
Patient Outreach	X	E-Prescribing	
Privacy and Security		Medication History	
Privacy and Security Framework based on FIPS		Incentive or grants to independents	
Individual choice (Opt In/Opt Out/hybrid)	Hybrid	Plan for controlled substance	X
Authentication Services	X	Set goal for 100% participation	
Audit Log	X	Controlled substance strategy	X
Administrative Simplification			
Electronic eligibility verification	X	Care Summaries	
Electronic claims transactions	X	Translation services	
Vendor		CCD/CCR Repository	X
Planning		Directories	
Core Services	Axolotl	Provider Directory	
Plan Model		Master Patient Index	X
Identified model(s)	TBD	Record Locator Services	X
		Health Plan Directory	
		Directory of licensed clinical laboratories	

Information for this profile was obtained from the approved Operational and Strategic Plan submitted to the National Coordinator for Health Information Technology as a condition of the Health Information Exchange Cooperative Agreement. The complete plan can be downloaded at:

<http://statehieresources.org/>



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State Health Information Exchange Cooperative Agreement Program
HealthIT.hhs.gov